Message

From: Woodbury, Lynn [woodburyl@cdmsmith.com]

Sent: 1/2/2020 5:12:38 PM

To: Partridge, Charles [Partridge.Charles@epa.gov]

Subject: RE: references

Well shoot! Yes, I'll draft the question you can send to Turker...need to wrap up another deliverable first and then I'll shift focus.

Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles < Partridge. Charles@epa.gov>

Sent: Thursday, January 2, 2020 9:26 AM

To: Woodbury, Lynn < woodburyl@cdmsmith.com>

Subject: RE: references

Still nothing, I will get it from our library, but im sure it will take a few days. Can you send me the question to ask? I have the email for Turker.

ср

From: Woodbury, Lynn <woodburyl@cdmsmith.com>

Sent: Thursday, January 2, 2020 8:57 AM

To: Partridge, Charles < Partridge. Charles@epa.gov>

Subject: RE: references

Hmmm...try this link: https://www.semanticscholar.org/paper/Concentrations-of-toxic-metals-and-trace-elements- T%C3%BCrker-Ergen/fb7fb8d119d22d417549d5b85994a3f546d336ec

At the bottom of the page, click on the "ALTERNATIVE SOURCES" drop down and select the first option in the list "akademikpersonel.kocaeli...."

I can prepare an email to the author if you would like...I'll try to get you something later today. Lynn

Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles < Partridge. Charles@epa.gov>

Sent: Thursday, January 2, 2020 8:50 AM

To: Woodbury, Lynn < woodburyl@cdmsmith.com>

Subject: RE: references

Lynn,

The paper isn't showing up anymore, does the link still work for you? If not, could you formulate a specific question for the author for me to send?

Thanks,

From: Woodbury, Lynn <woodburyl@cdmsmith.com>

Sent: Tuesday, December 31, 2019 12:47 PM

To: Partridge, Charles < Partridge. Charles @epa.gov>

Cc: Wall, Dan <wall.dan@epa.gov>; Greene, Nikia <Greene.Nikia@epa.gov>; David Shanight

<shanightdt@cdmsmith.com>

Subject: RE: references

Our InfoCenter was able to identify a publicly-available link for the Turker et al. 2006 paper:

http://akademikpersonel.kocaeli.edu.tr/arisoyae/sci/arisoyae04.03.2011_15.27.44sci.pdf

++++++++++++++++++++++++++++

Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Woodbury, Lynn

Sent: Monday, December 30, 2019 4:13 PM

To: 'Partridge, Charles' <Partridge.Charles@epa.gov>

Cc: Wall, Dan <wall.dan@epa.gov>; Greene, Nikia <Greene.Nikia@epa.gov>; Shanight, David

<ShanightDT@cdmsmith.com>

Subject: RE: references

Here you go... To convert the reported values in Turker et al. (2013) to meconium concentrations, you could assume the median body weight is applicable (e.g., 2.070 kg for surviving infants). Based on the review of literature we have compiled, I suspect the units for copper, lead, and zinc are actually $\mu g/g/kg$ (not ng/g/kg). If this were true, the values presented in Turker et al. (2013) would be similar to those reported by Turker in 2006:

https://www.ncbi.nlm.nih.gov/pubmed/16319451. [Unfortunately, I can't email you the Turker et al. 2006 citation due to a copyright issue.] Of note – both Turker publications indicate the exact same detection limits were achieved, so it is very unusual that the 2013 study would be able to report levels 1000x lower than the 2006 study.

The Turker-authored chapter you noted is available online as a preview here: https://books.google.com/books?id=5-6c8AAAQBAJ&pg=PA45&dg=10.1016/B978-0-12-800872-0.00005-

6&hl=en&newbks=1&newbks redir=0&sa=X&ved=2ahUKEwjY avsuN7mAhVig-

AKHXVKDGcQ6AEwAHoECAYQAg#v=onepage&q=10.1016%2FB978-0-12-800872-0.00005-6&f=falseges and the second statement of the second

Gülcan Türker, The Effect of Heavy Metals on Preterm Mortality and Morbidity, Handbook of Fertility, 10.1016/B978-0-12-800872-0.00005-6, (45-59), (2015)

I did a quick scan of the text and didn't see any clues that would help with the meconium units question. However, there is a discussion of how trace minerals, such as copper, manganese, and zinc, are "...essential nutrients for a health life."

Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles < Partridge. Charles@epa.gov>

Sent: Monday, December 30, 2019 3:16 PM

To: Woodbury, Lynn < woodburyl@cdmsmith.com>

Cc: Wall, Dan <wall.dan@epa.gov>; Greene, Nikia <Greene.Nikia@epa.gov>; Shanight, David

<ShanightDT@cdmsmith.com>

Subject: RE: references

Can you send me this paper again. I will try to read to out to the authors to ask if there is an error.

From: Woodbury, Lynn <woodburyl@cdmsmith.com>

Sent: Monday, December 30, 2019 3:02 PM

To: Partridge, Charles < Partridge. Charles @epa.gov>

Cc: Wall, Dan <wall.dan@epa.gov>; Greene, Nikia <Greene.Nikia@epa.gov>; David Shanight

<shanightdt@cdmsmith.com>

Subject: RE: references

Charlie,

There is only one meconium study cited in the recent brain cancer paper - Turker et al. 2013 - which we already obtained. The Turker study is the one done by Turkish researchers and printed in a Japanese pediatric journal. Recall this is the study that reported meconium levels in terms of infant body weight...it is also the one that we think there may a suspected units error (ng vs. μ g). Interesting that McDermott chose only to cite this one paper... Lynn

Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles < Partridge. Charles@epa.gov>

Sent: Monday, December 30, 2019 11:43 AM

To: Woodbury, Lynn < woodbury | @cdmsmith.com >; Greene, Nikia < Greene. Nikia @epa.gov >

Cc: Wall, Dan <wall.dan@epa.gov>

Subject: references

Lynn,

I went through the references for the brain cancer study and did not see any new references we need to include in the literature search. Can you do a quick check as well?

ср

Charles R. Partridge, Ph.D. Toxicologist U.S. EPA, Region 8 Technical Assistance Branch Denver, Colorado 303-312-6094 (office) 720-498-3715 (cell)